

King Fahd University of Petroleum and Minerals
Department of Math & Stat
Math 102 Section # 4, 5, 8 (091)
Quiz 3(a)

Time: 20 minutes

Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. Use partial fractions to evaluate $\int \frac{x^3 + 6x^2 + 3x + 6}{x^3 + 4x}$.

2. Evaluate $\int \sin x \sin 2x \sin 3x \, dx$.

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Quiz 3(b)

Time: 20 minutes

Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. Evaluate $\int \frac{2x^2 + 3}{x(x-1)^2} dx$.

2. Determine whether $\int_{-\infty}^{\infty} \frac{x dx}{\sqrt{x^2 + 2}}$ converges or diverges. If converges, then find its sum.

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Quiz 3(c)

Time: 20 minutes

Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. Evaluate $\int \frac{1}{x + \sqrt[3]{x}} dx$.

2. Check whether $\int_3^{\infty} \frac{8}{x^2 - 4} dx$ converges or diverges. If converges, then find its sum.

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Quiz 3(d)

Time: 20 minutes

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ID #: _____ Serial #: _____

1. Evaluate $\int \frac{dx}{1 - \sin x + \cos x}$.

2. Check whether $\int_{-\infty}^0 \frac{x dx}{1 + x^2}$ is convergent or divergent. If converges, then find its sum.